

PROCESS TO MAKE DECISION ON WHEN TO ALTER UPSTREAM BURST PROFILE
BASED UPON PACKET LOSS PERCENTAGE USING HYSTERESIS THRESHOLDS

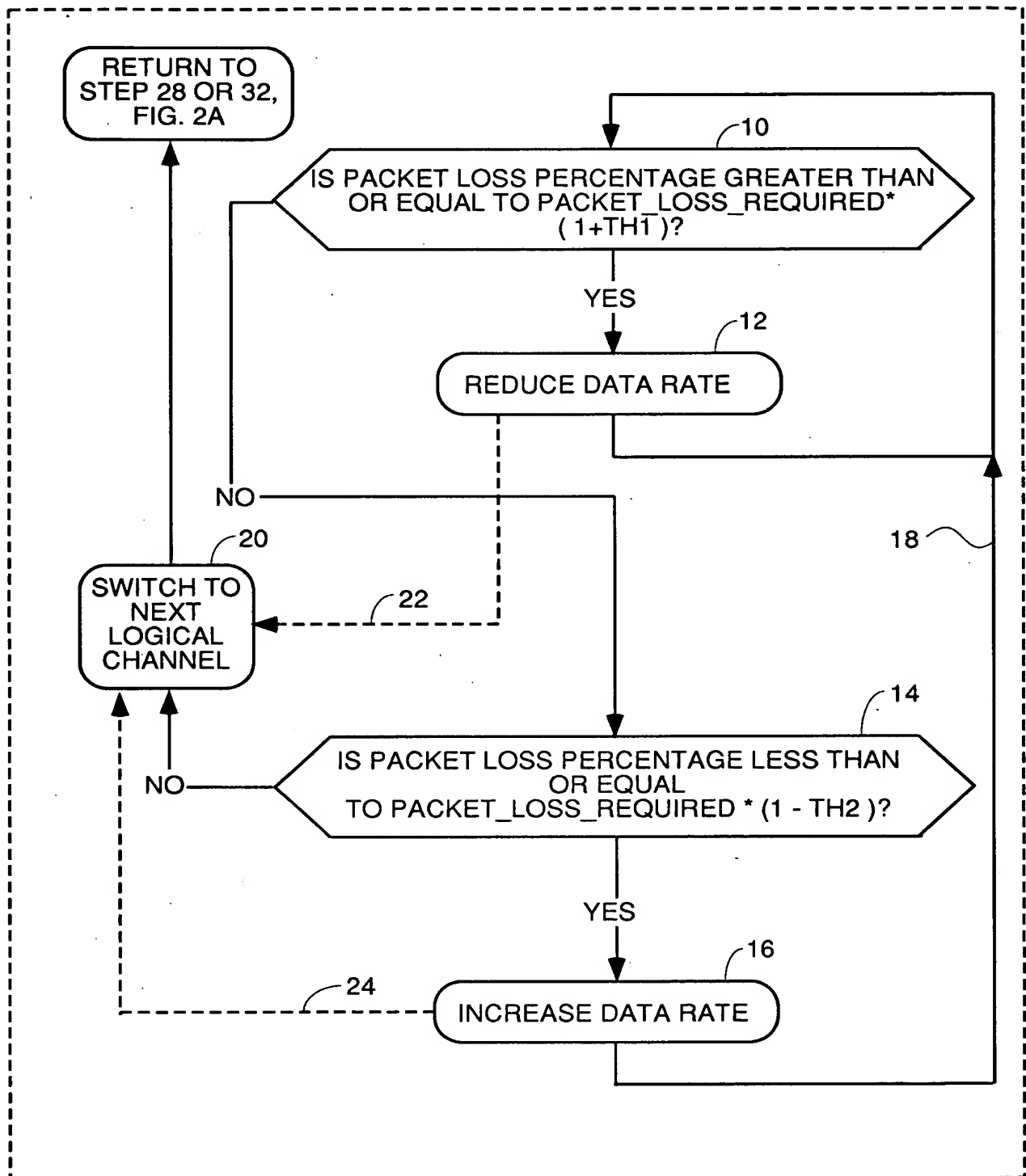
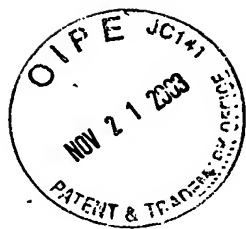


FIG. 1



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CMTS PROCESSING FOR AUTOMATIC RATE ADAPTATION WITH CHANGING NOISE

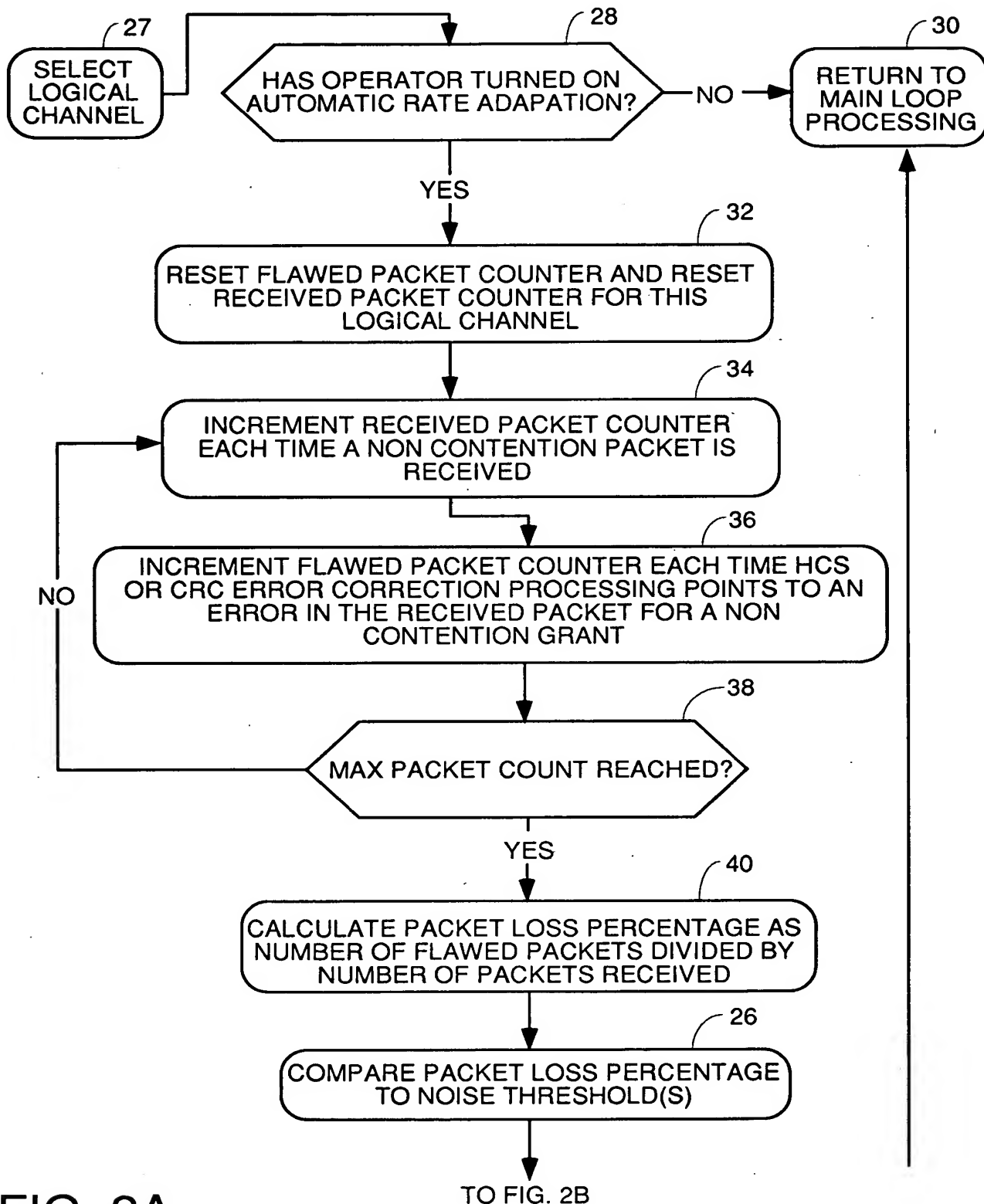
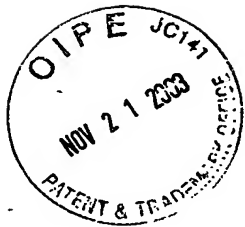


FIG. 2A

TO FIG. 2B



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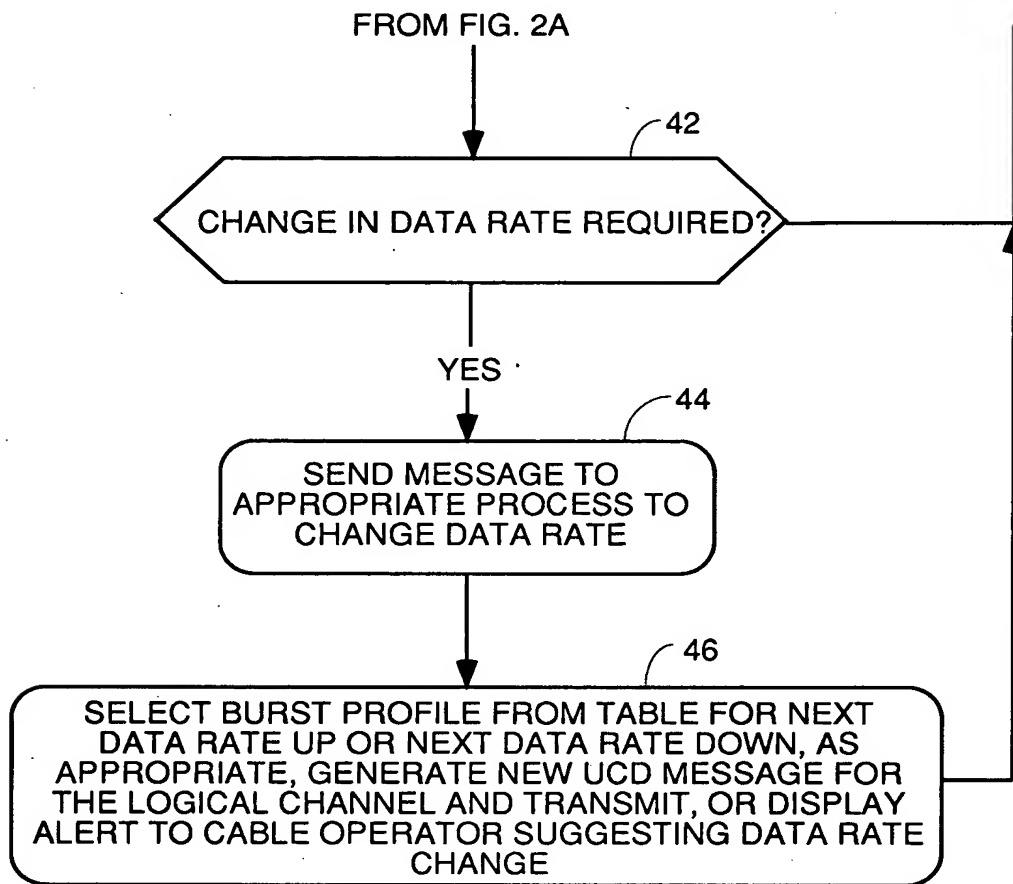
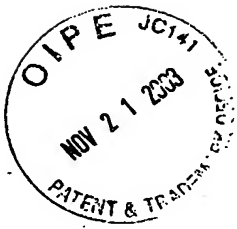


FIG. 2B



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CMTS PROCESSING FOR AUTOMATIC RATE ADAPTATION WITH CHANGING NOISE

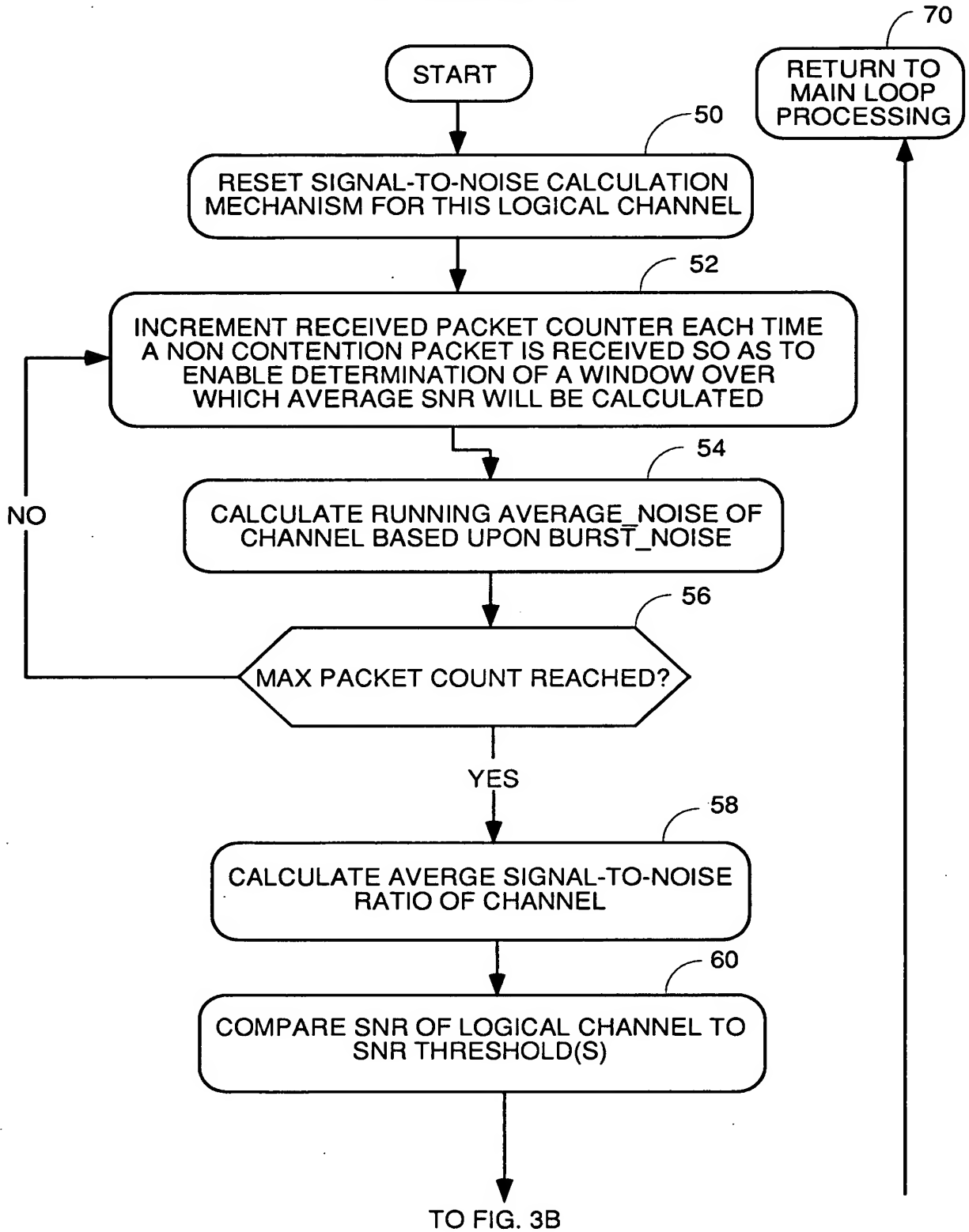
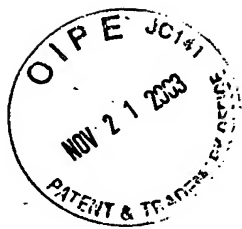


FIG. 3A



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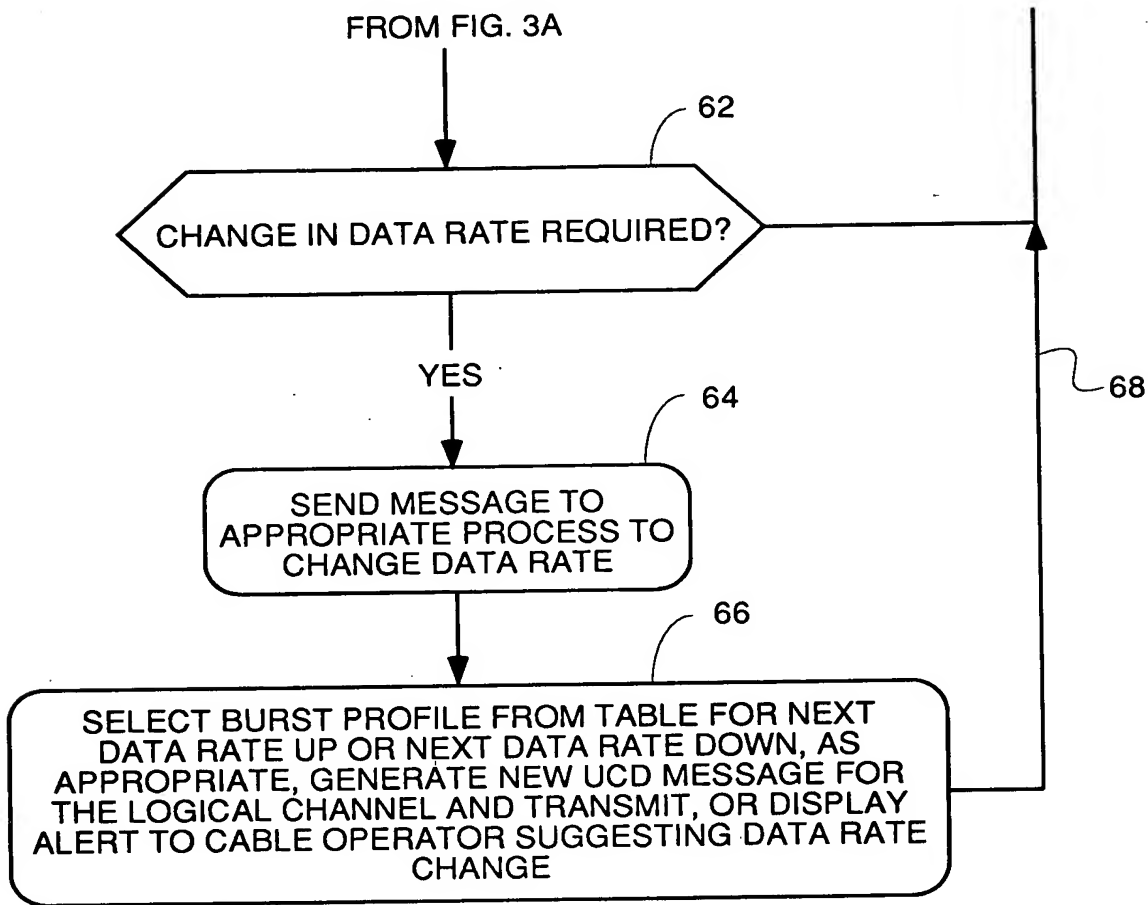
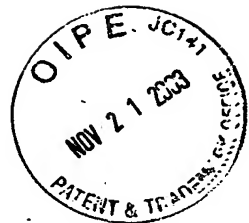


FIG. 3B



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PROCESS FOR AUTOMATIC RATE ADAPTATION USING BIT ERROR RATE AND BYTE ERROR RATE

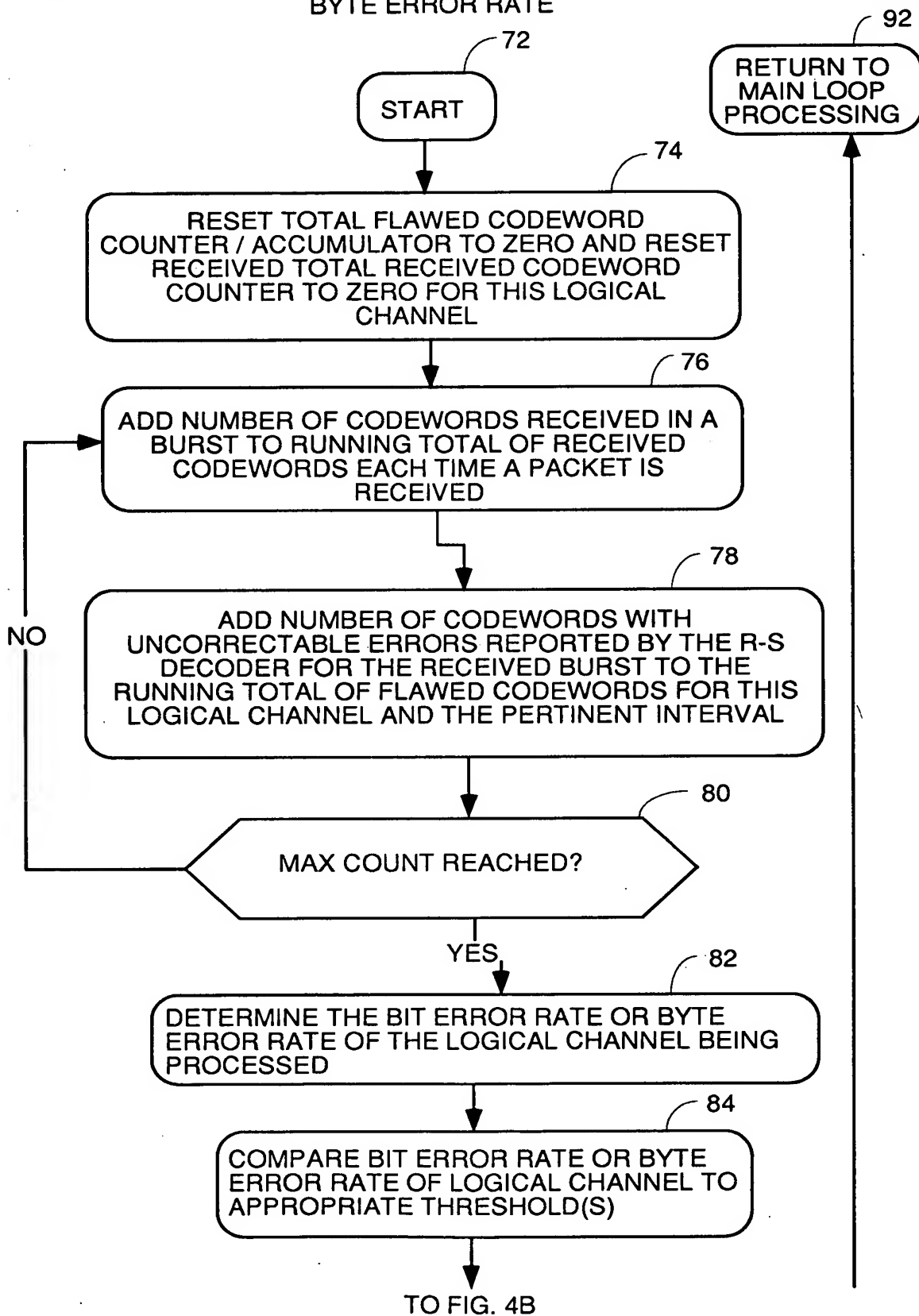
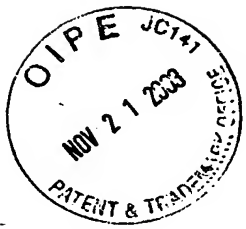


FIG. 4A



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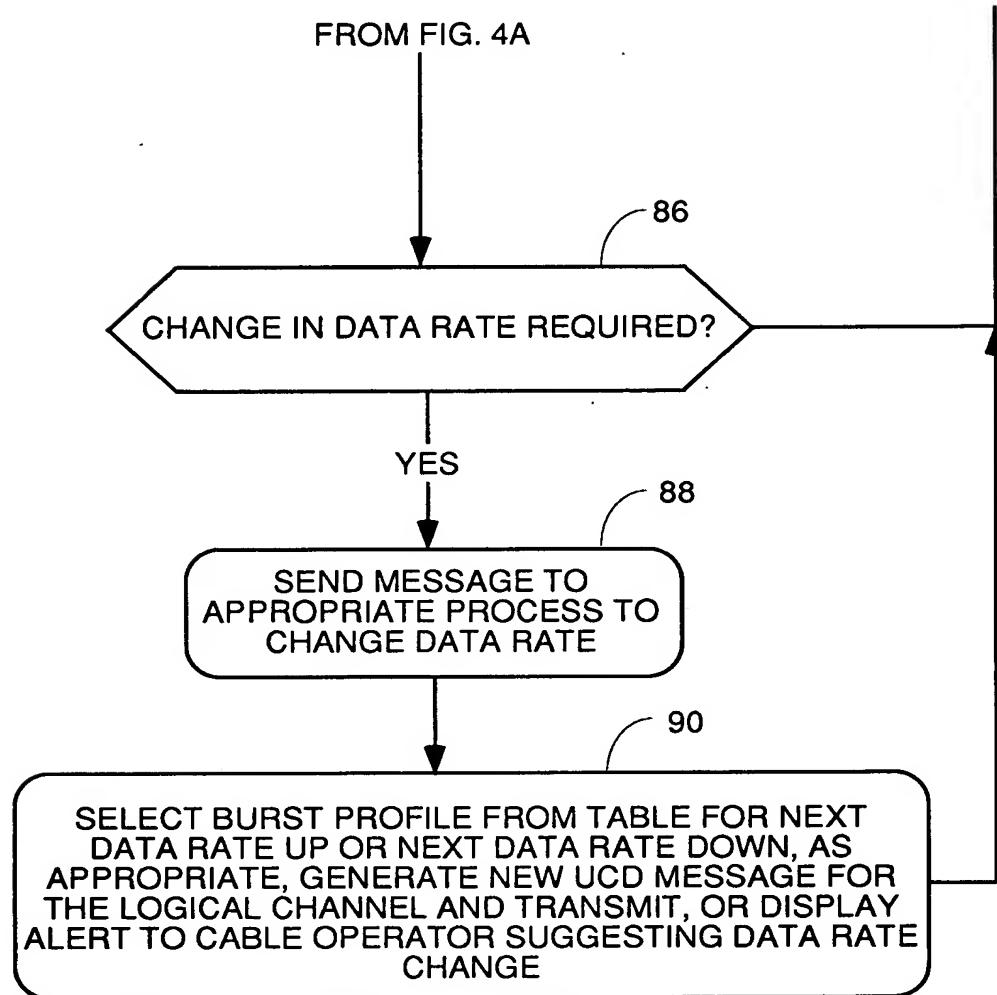
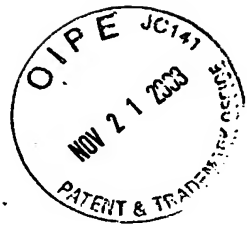


FIG. 4B



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GENERIC PROCESS TO AUTOMATICALLY DETECT THE NEED TO ADAPT
BIT RATE TO NOISE CONDITIONS ON A LOGICAL CHANNEL AND
AUTOMATICALLY CHANGE BIT RATE

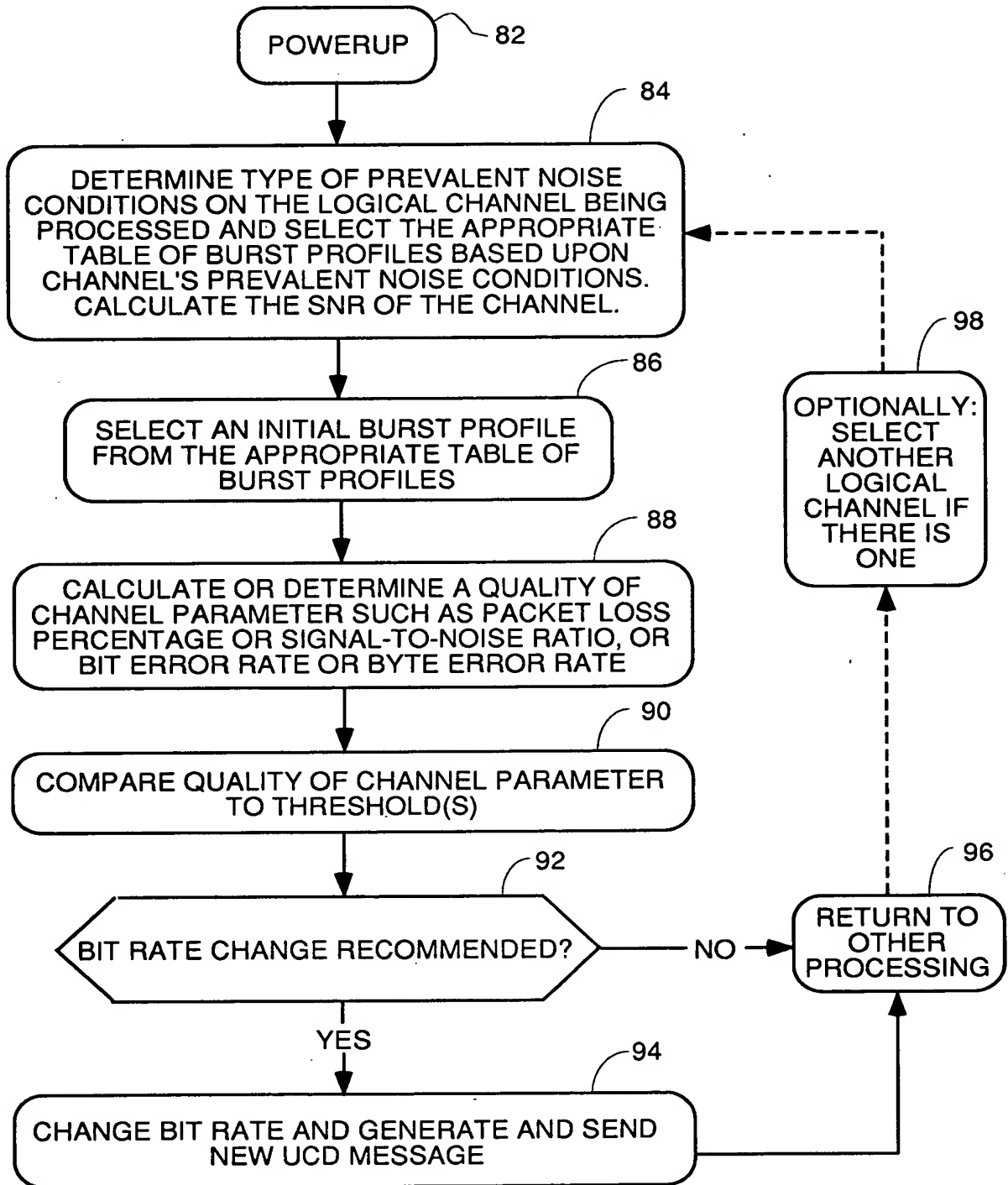
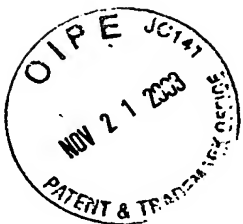


FIG. 5



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GENERIC PROCESS TO AUTOMATICALLY DETECT THE NEED TO ADAPT BIT
RATE TO NOISE CONDITIONS ON A LOGICAL CHANNEL AND
GENERATE MESSAGE

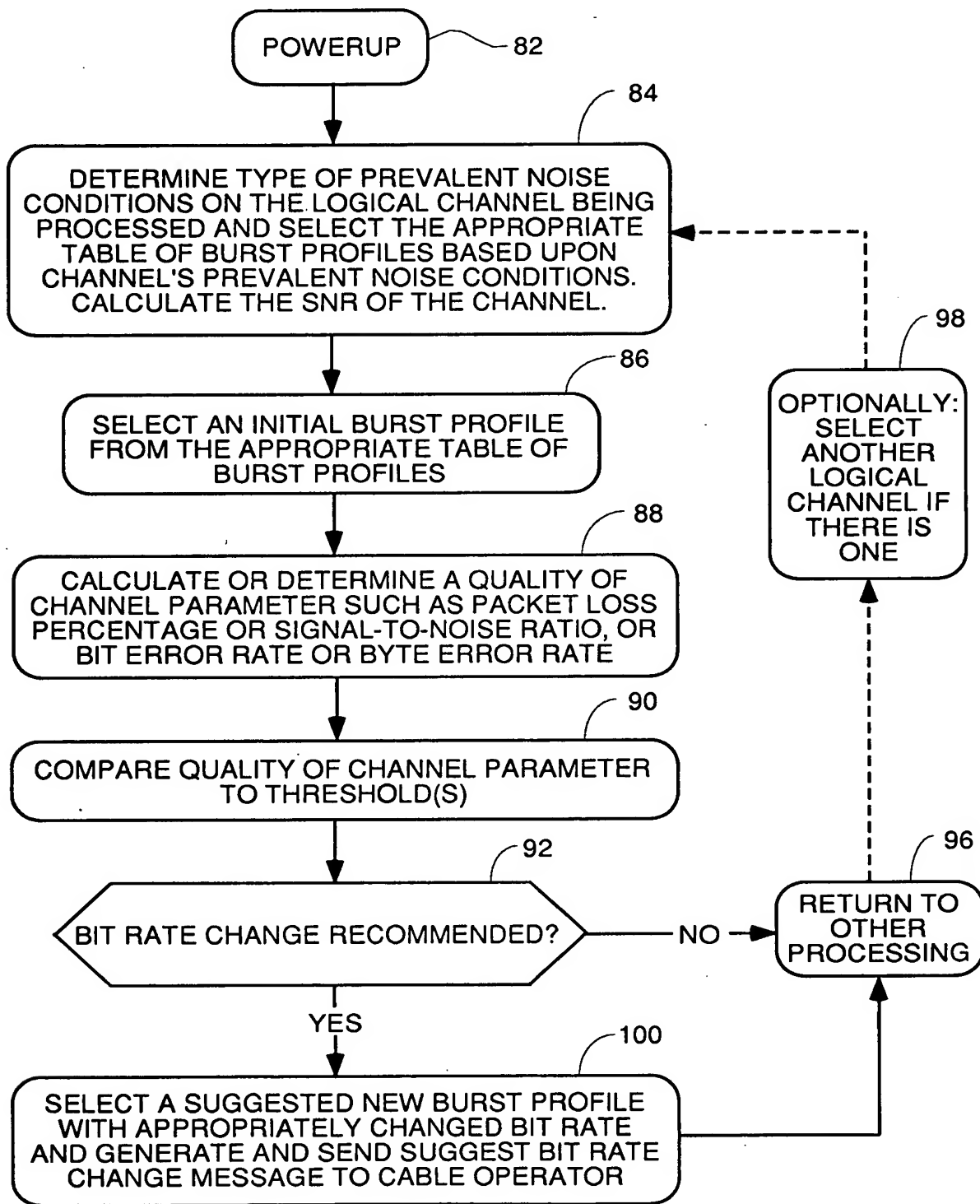


FIG. 6

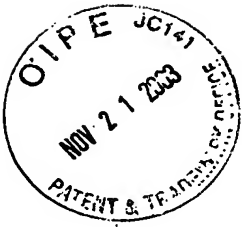


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EXAMPLE OF BURST PROFILES OF DATA FOR DIFFERENT AWGN SNR
 FOR DOCSIS 1.X

#	USE FOR IMPULSE NOISE CHANNEL YES/NO	% BIT RATE FROM MAX	NET DATA RATE @ 2.56 MSPS	MODULATION	RS		
1	y	22%	2.3 Mbps	QPSK	k=16, t=10		
2	y	29%	3.0 Mbps	QPSK	k=28, t=10		
			3.8 Mbps	QPSK	k=58, t=10		
3	y	39%	4.0 Mbps	QPSK	k=78, t=10		
4	n	46%	4.7 Mbps	QPSK	k=235, t=10		
5	y	50%	5.1 Mbps	16-QAM	k=20, t=10		
			6.0 Mbps	16-QAM	k=28, t=10		
6	y	62%	6.4 Mbps	16-QAM	k=39, t=10		
			7.5 Mbps	16-QAM	k=55, t=10		
7	y	79%	8.1 Mbps	16-QAM	k=78, t=10		
8	y	92%	9.4 Mbps	16-QAM	k=235, t=10		
9	n	100%	10.24 Mbps	16-QAM	k=16, t=0		

FIG. 7



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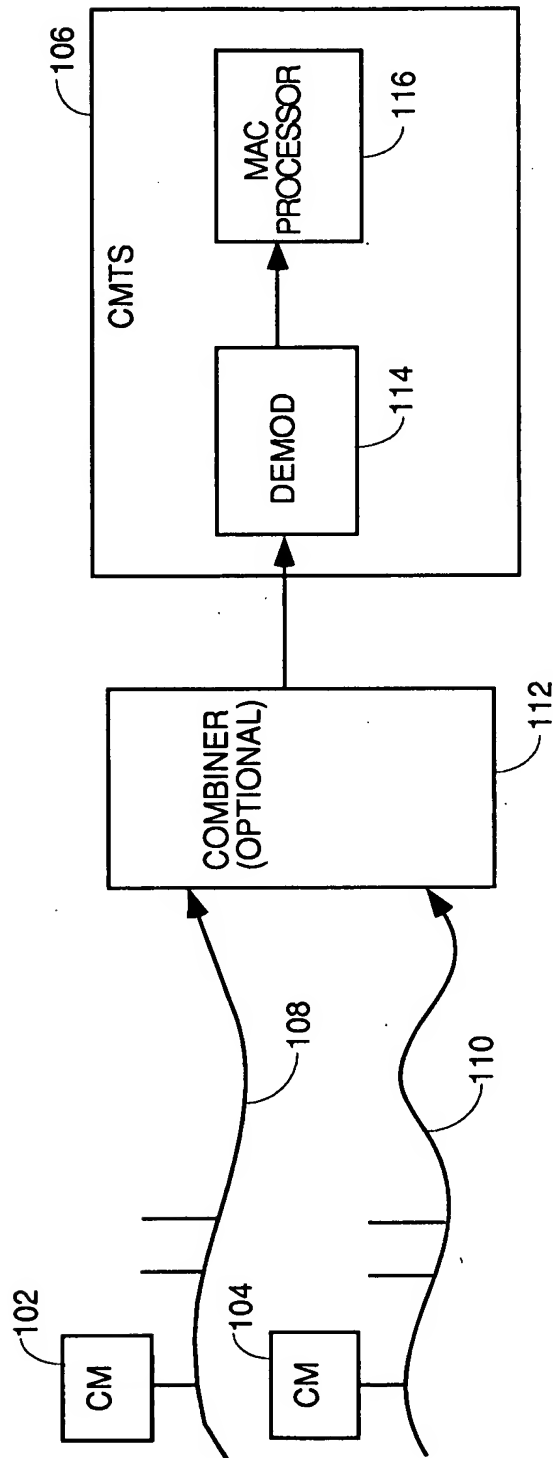
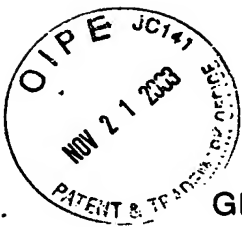


FIG. 8



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GENERIC PROCESS TO AUTOMATICALLY DETECT THE NEED TO ADAPT BIT RATE TO NOISE CONDITIONS ON A LOGICAL CHANNEL AND ADJUST THE BIT RATE

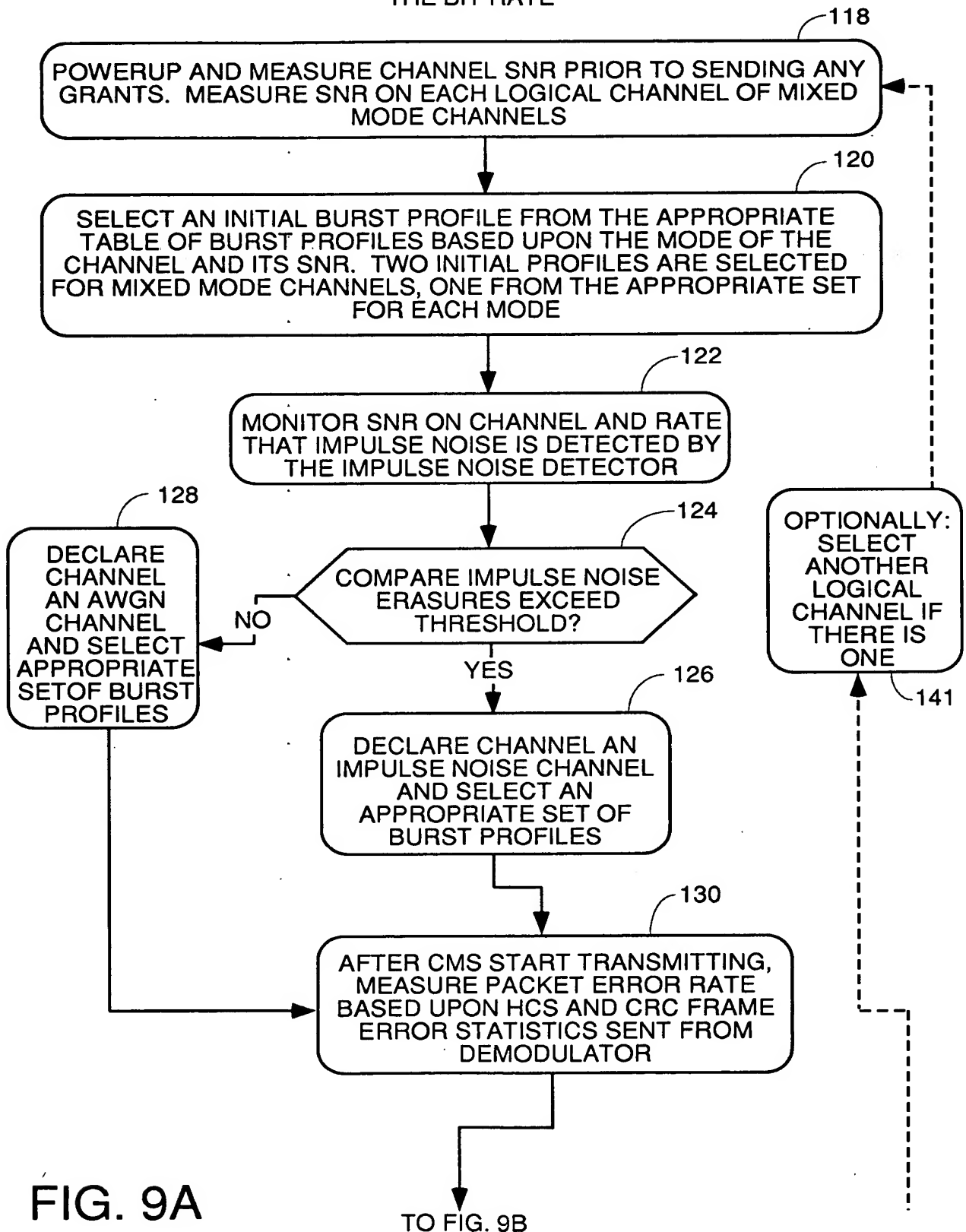
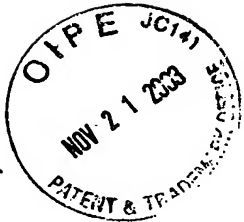


FIG. 9A



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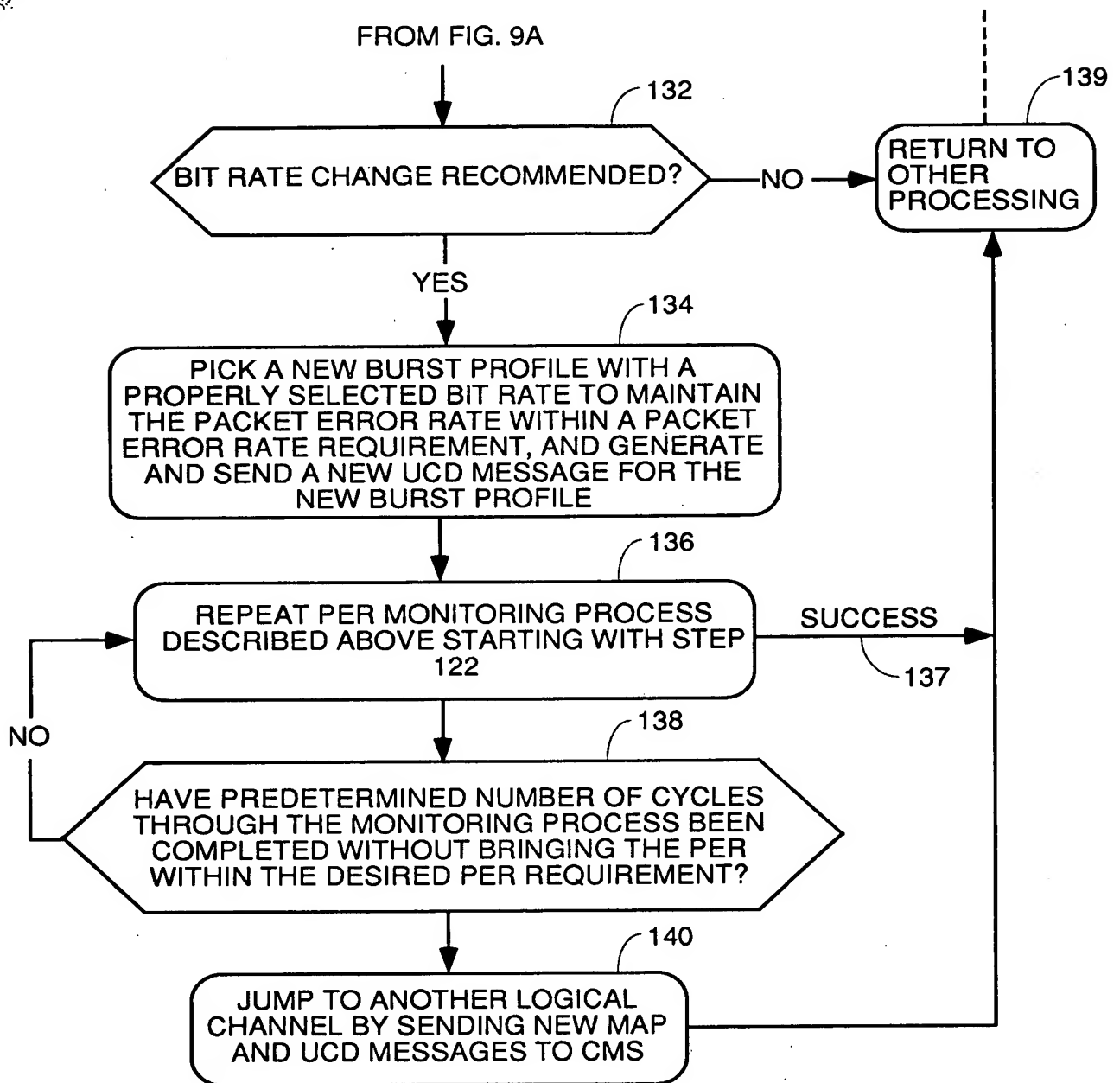


FIG. 9B